

Recovery Plan Action Status

Plan Name: Cumberland Bean Pearly Mussel

Plan Status: Final

Plan Date: 22-Aug-84

Lead Agency: USFWS

Lead Office: Kentucky Ecological Services Field Office

(502)

695-0468)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Cumberland bean (pearlymussel) (Villosa trabalis)	1	1.1	Continue to utilize existing legislation and regulations to protect species and habitat.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Law Enforcement Division, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Other	Internal Technical Assistance	See general categories for Implementation schedules.
Cumberland bean (pearlymussel) (Villosa trabalis)	3	1.2.1	Determine species' present distribution and status.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Research: Demographic Studies, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	The Ky Dept Fish & Wildlife Resources conducts status surveys for V. trabalis across Kentucky each year. Other agencies' responsibility would be of a cooperative nature or projects funded under a contract or grant program. In some cases contracts could be let to universities or private enterprises

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Cumberland bean (pearlymussel) (Villosa trabalis)	2	1.2.2	Characterize habitat and determine essential elements.	Partially Complete	Prior to FY 1995		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Research: Habitat Requirements, Research: Habitat Status	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	Note: Task costs have not been estimated for this plan. This species exists with other listed mussels in the same river systems. Thus, a task aimed at this species will benefit others. Rather than attempting to apportion the costs to each species, recovery tasks will be estimated at a later date when the plans are combined on a watershed basis for implementation.
Cumberland bean (pearlymussel) (Villosa trabalis)	2	1.2.3	Determine the extent of preferred habitat and present information in a manner which identifies areas in need of special attention.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Research: Habitat Requirements, Research: Habitat Status	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	

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Cumberland bean (pearlymussel) (<i>Villosa trabalis</i>)	1	1.3.1	Determine present and foreseeable threats to species.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Research	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	Includes tasks 1.3.2, and 1.3.3.
Cumberland bean (pearlymussel) (<i>Villosa trabalis</i>)	2	1.3.4	Determine measures needed to minimize threats and implement where needed to meet recovery.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission, Tennessee and Kentucky Nature Conservancy	Management: Habitat Maintenance and Manipulation, Management: Other	Contract, Internal Technical Assistance, Species Expert	

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Cumberland bean (pearlymussel) (Villosa trabalis)	2	1.4.1	Solicit help in protecting species and essential habitat.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission, Tennessee and Kentucky Nature Conservancy	Management: General, Management: Planning	Contract, Internal Technical Assistance, Species Expert	Includes tasks 1.4.2, 1.4.3, and 1.4.4; partnerships with TVA, TWRA, KDFWR, TNC, THP, KNPC
Cumberland bean (pearlymussel) (Villosa trabalis)	2	1.4.5	Develop and utilize information and education program (slide/tape shows, brochures, etc.) for local distribution.	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission, Tennessee and Kentucky Nature Conservancy	Other: Information and Education	Contract, Internal Technical Assistance, Species Expert	Task duration is one year for development and continued implementation.

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Cumberland bean (pearlymussel) (<i>Villosa trabalis</i>)	2	1.5	Investigate the use of Scenic River Status, mussel sanctuaries, land acquisitions, and/or other means to protect the habitat.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Management: Other, Other: Law Enforcement, Other: Regulations	Internal Field Assistance, Internal Technical Assistance, Species Expert	
Cumberland bean (pearlymussel) (<i>Villosa trabalis</i>)	3	2.1	Survey rivers within species' historic range to determine availability of suitable transplant sites.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Research: General, Research: Habitat Requirements, Research: Habitat Status, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	Includes task 2.2. Task 2.1 - 2.3 may not be required if other populations are found in 1.2.1. KDFWR continues to search for the species each year within its historic range.
Cumberland bean (pearlymussel) (<i>Villosa trabalis</i>)	3	2.3	Determine best method of establishing new populations.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Research: General, Research: Management Techniques, Research: Propagation, Research: Taxonomic Studies	Contract, Internal Technical Assistance, Species Expert	KDFWR, Tenn Tech, and Va Tech continue to work on propagation. KDFWR has successfully reared juveniles to the 15-20 mm size needed for reintroduction projects. These inds will be placed in Sinking Crk, Laurel Co, KY in Sept. 09.

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Cumberland bean (pearlymussel) (<i>Villosa trabalis</i>)	3	2.4	Reestablish populations within historic range as needed to meet recovery.	Not Started			Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Management: Reintroduction	Contract, Internal Field Assistance, Internal Technical Assistance, Species Expert	Work/research continues to be conducted each year by Virginia Tech, Tennessee Tech (Dr. Jim Layzer), and KDFWR's Center for Mollusk Conservation (Dr. Monte McGregor)
Cumberland bean (pearlymussel) (<i>Villosa trabalis</i>)	3	2.5	Implement same protective measures for these reestablished populations as for known populations.	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission, Tennessee and Kentucky Nature Conservancy	Management: Other, Management: Reintroduction	Internal Field Assistance, Internal Technical Assistance, Species Expert	

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Cumberland bean (pearlymussel) (<i>Villosa trabalis</i>)	2	3	Conduct life history studies on a need-to-know basis.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Research: Competition, Research: Demographic Studies, Research: Migration, Research: Other Information, Research: Predation	Contract, Graduate Student, Internal Technical Assistance, Species Expert	Work conducted by Virginia Tech, Tennessee Tech (Dr. Jim Layzer), and KDFWR's Center for Mollusk Conservation (Dr. Monte McGregor)
Cumberland bean (pearlymussel) (<i>Villosa trabalis</i>)	3	4	Determine the number of individuals required to maintain a viable population.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Research: Genetics, Research: Other Information, Research: Reintroduction	Contract, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	These studies will be developed and carried out where there is a specific need for data necessary to reach recovery.
Cumberland bean (pearlymussel) (<i>Villosa trabalis</i>)	2	5	Investigate the need for habitat improvement and implement only where needed to meet recovery objective.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Management: Habitat Maintenance and Manipulation, Research: Habitat Requirements, Research: Habitat Status	Contract, Graduate Student, Internal Technical Assistance, Species Expert	

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Cumberland bean (pearlymussel) (Villosa trabalis)	2	6	Develop and implement a monitoring program.	Ongoing Current	FY 2005		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission	Research: Demographic Studies, Research: Other Information, Research: Population Surveys, Research: Taxonomic Studies	Contract, Internal Technical Assistance, Species Expert	KDFWR continues to search for and monitor populations each year - assisted by KFO and others
Cumberland bean (pearlymussel) (Villosa trabalis)	2	7	Annual assessment of recovery program and modify where needed.	Ongoing Current	FY 2005		U.S. Fish and Wildlife Service, Ecological Services Division, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Kentucky Department of Fish and Wildlife Resources, Tennessee Heritage Program, USFWS Regional Office 4, U.S. Fish and Wildlife Service - Endangered Species Program, Kentucky Nature Preserves Commission, Tennessee and Kentucky Nature Conservancy	Other, Research: General	Contract, Internal Technical Assistance, Species Expert	KDFWR, KFO, and other partners discuss progress each year and determine next steps in locating ind of the species